

leading out toward the end of the axle. If any are found, replace the axle.

4. Inspect the rear axle hub splines (Figure 21). If either section is damaged, replace the rear axle.

5. Check the axle for straightness. Use V-blocks and a dial indicator as shown in Figure 22. Check the runout in the center of the axle and remember that

the actual runout is 1/2 of the total indicator runout reading from the dial indicator. If the runout exceeds the service limit dimension listed in Table 1 or greater, the axle must be replaced.

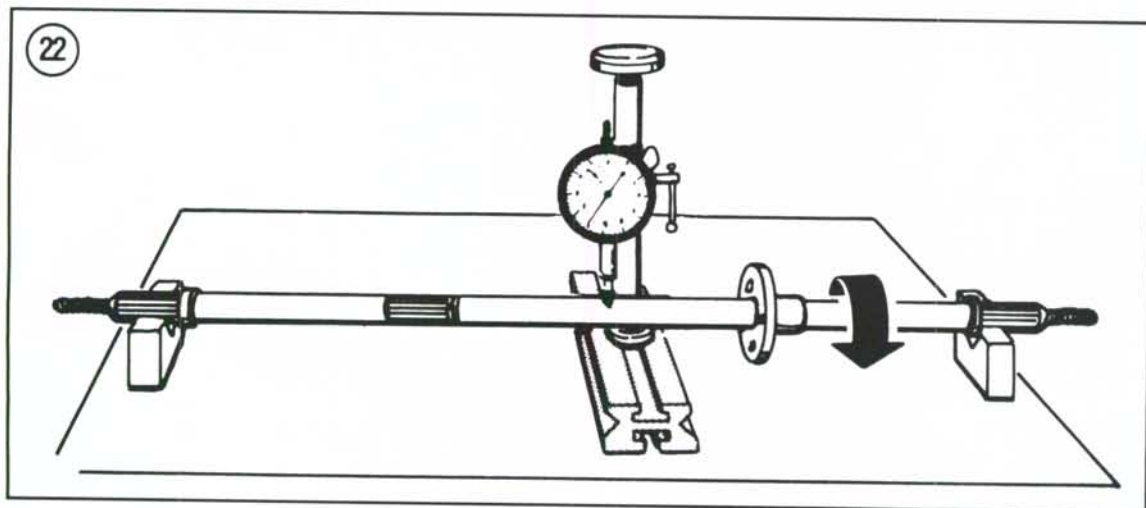
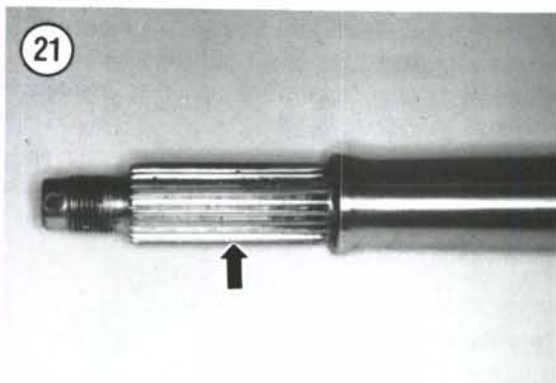
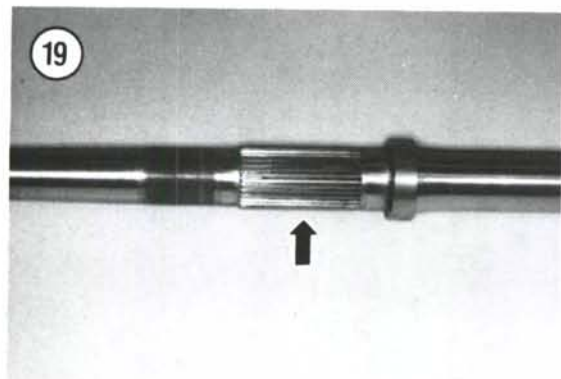
6. Inspect the rear hub splines (Figure 23) and threaded studs (Figure 24). If either is damaged, replace the rear hub(s).

## FINAL DRIVE UNIT

Service procedures for the drive shaft and universal joint are covered along with the swing arm procedures in this chapter.

### Removal

1. Place the vehicle on level ground and set the parking brake.
2. Remove the rear fender as described in Chapter Thirteen.





3. Drain the final drive unit oil as described in Chapter Three.
4. Remove the rear axle (A, **Figure 25**) as described in this chapter.
5. Remove the rear brake panel assembly as described in Chapter Twelve.
6. Remove the bolts securing the final drive housing skid plate (B, **Figure 25**) and remove the skid plate.
7. Remove the bolts securing the axle housing (**Figure 26**) to the final drive unit and remove the axle housing from the swing arm.
8. Disconnect the vent hose (A, **Figure 27**) from the final drive unit.

#### CAUTION

See the **CAUTION** at the beginning of this chapter relating to the use of self-locking nuts.

#### NOTE

In **Figure 27**, only 3 of the 4 nuts are visible. Be sure to remove all 4 nuts.

9. Remove the 4 self-locking nuts (B, **Figure 27**) securing the final drive unit to the drive shaft portion of the swing arm. Discard the nuts, they cannot be reused.
10. Pull the final drive unit toward the rear and disengage the final drive unit splines from the drive shaft. Remove the final drive unit. Don't lose the spring within the drive shaft joint.

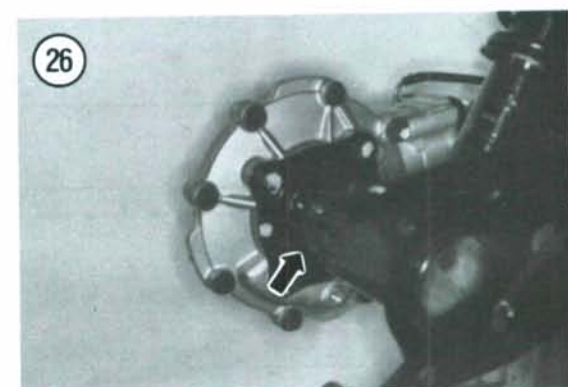
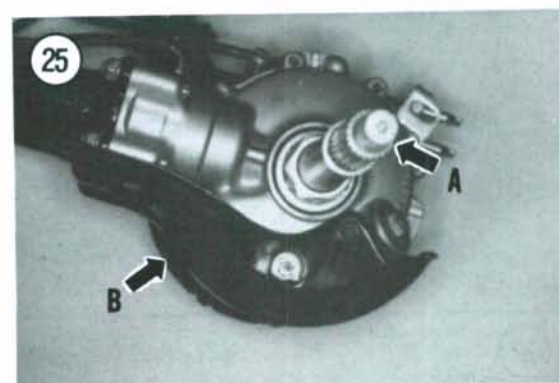
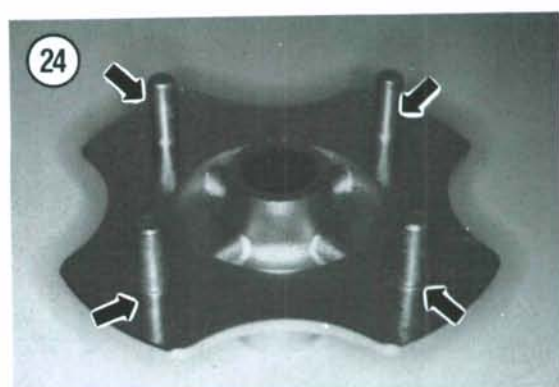
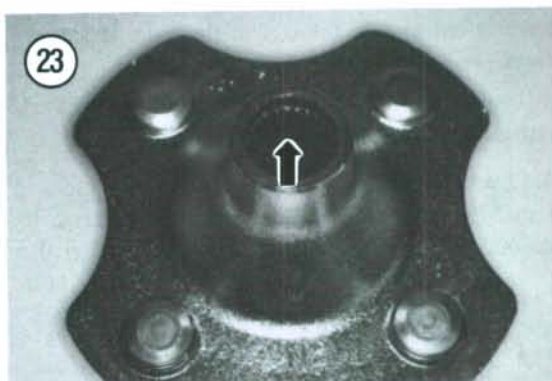
### Installation

1. Install a new O-ring seal (**Figure 28**) on the swing arm where it mates to the final drive unit. Apply clean engine oil to the O-ring.
2. Install a new O-ring seal (A, **Figure 29**) on the axle housing side of the final drive unit. Apply clean engine oil to the O-ring.
3. Make sure the spring is in place within the recess in the drive shaft joint.
4. Carefully align the splines of the final drive unit with the splines on the drive shaft.

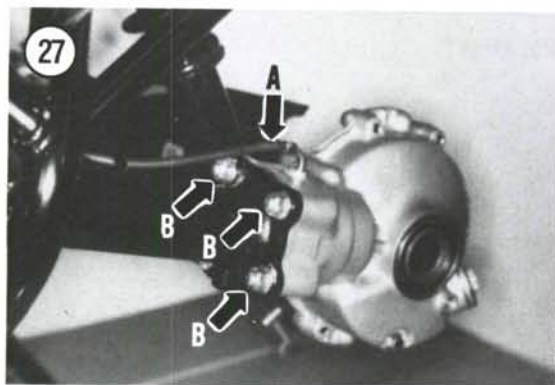
#### CAUTION

See the **CAUTION** at the beginning of this chapter relating to the use of self-locking nuts.

5. Install new final drive unit mounting nuts (B, **Figure 27**) and tighten finger-tight at this time.







6. Attach the breather tube (A, **Figure 27**) to the final drive unit.

7. Install the skid plate to the final drive unit and tighten the bolts securely.

8. Install a new O-ring seal (**Figure 30**) on each side of the axle housing. Apply clean engine oil to the O-rings.

9. Install the axle housing (**Figure 26**) to the final drive unit and tighten the bolts to the torque specification listed in **Table 2**.

10. Tighten the final drive unit mounting nuts to the torque specification listed in **Table 2**.

11. Install the rear brake panel assembly as described in Chapter Twelve.

12. Install the rear axle as described in this chapter.

13. Install the rear fender as described in Chapter Thirteen.

14. Refill the final drive unit with the recommended type and quantity of oil as described in Chapter Three.

### Disassembly/Inspection/Assembly

The final drive unit requires a considerable number of special Honda tools for disassembly and assembly. The price of all of these tools could be more than the cost of most repairs or seal replacement by a dealer.

**Figure 31** shows all of the internal components of the final drive unit.

1. Check the entire unit for oil leakage (**Figure 32**).  
2. Inspect the splines of the pinion gear (A, **Figure 33**) and the pinion joint (**Figure 34**) for wear or damage. If damaged, repair should be entrusted to a dealer as disassembly is required.

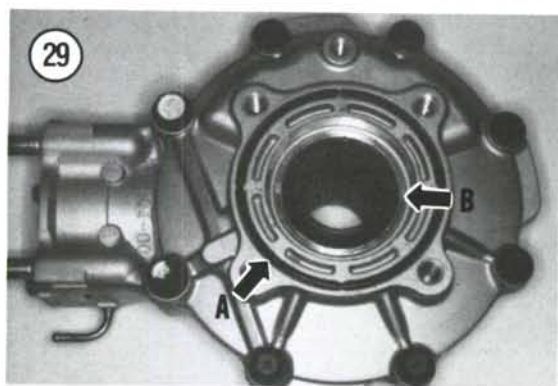
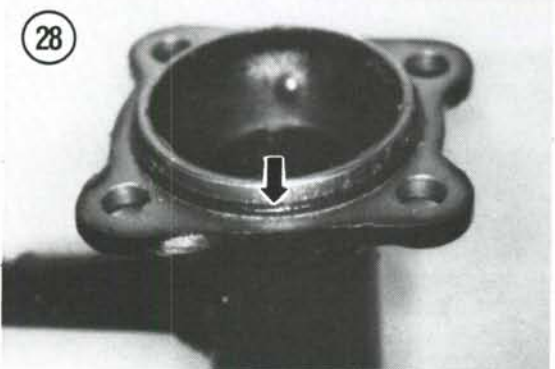
#### NOTE

*If these splines are damaged, also inspect the splines on the rear axle and the drive shaft, they may require replacement also.*

3. Inspect the grease seal on the right-hand side (B, **Figure 33**) and left-hand side (B, **Figure 29**) for damage, replace if necessary.

4. Inspect the threaded studs (**Figure 35**) for damage. Clean with an appropriate size thread die or have them replaced by a Honda dealer if necessary.

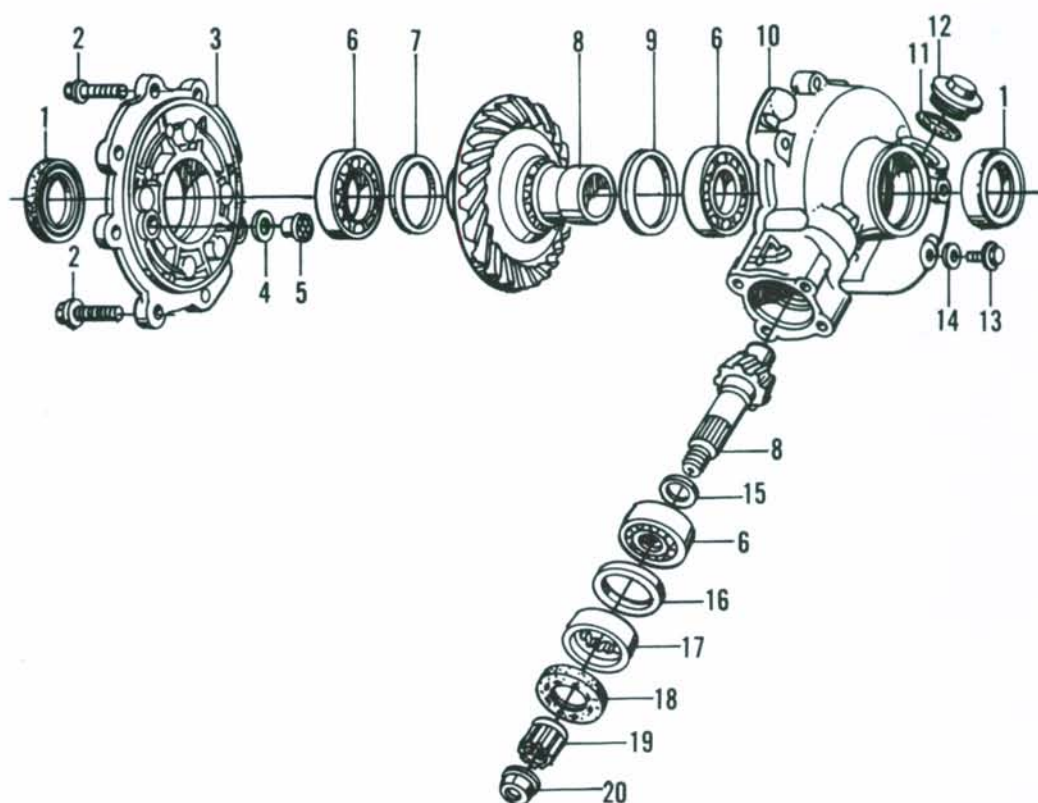
5. Make sure the 10 mm bolts (A, **Figure 36**) and 8 mm bolts (B, **Figure 36**) securing the gear case cover to the final drive unit are tight. Tighten, if





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## FINAL DRIVE UNIT



- 1. Oil seal
- 2. Bolt
- 3. Cover
- 4. Shim
- 5. Stopper pin
- 6. Bearing
- 7. Shim

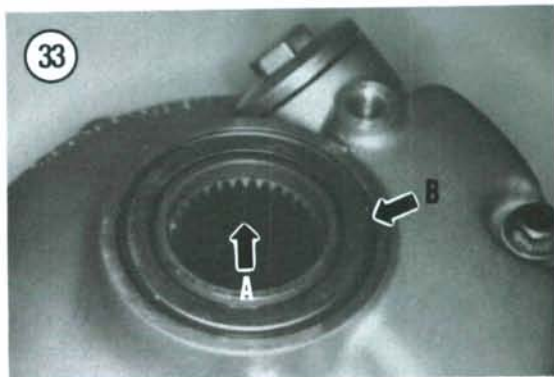
- 8. Final gear set
- 9. Shim
- 10. Final drive gear case
- 11. O-ring
- 12. Filler cap
- 13. Drain bolt
- 14. Washer

- 15. Shim
- 16. Washer
- 17. Locknut
- 18. Oil seal
- 19. Pinion joint
- 20. Nut

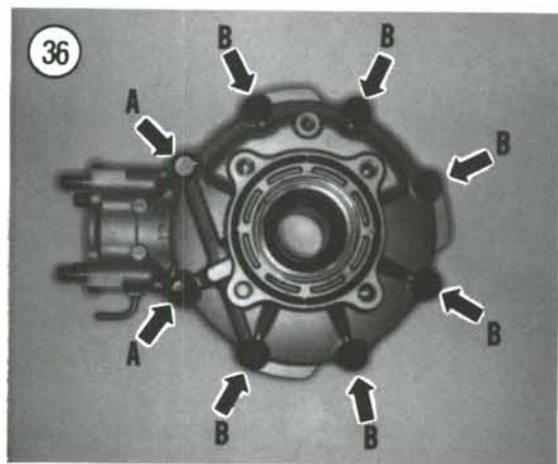
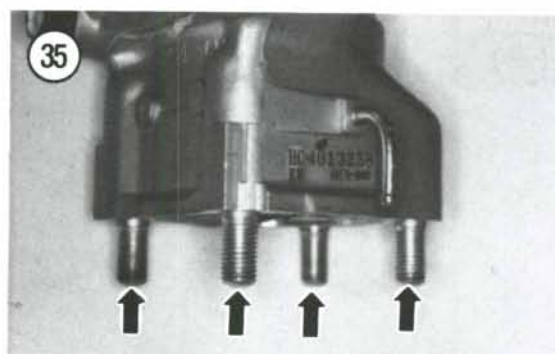
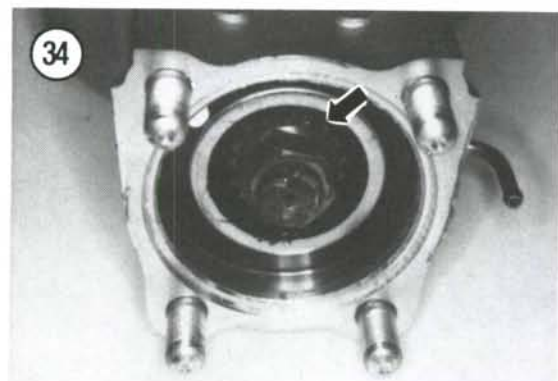
32



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necessary, to the torque specifications listed in **Table 2**.

## SHOCK ABSORBER

### Removal/Installation

1. Place the vehicle on level ground and set the parking brake.
2. Place wood block(s) under the skid plate to support the vehicle securely with the rear wheels off of the ground.

### CAUTION

*See the CAUTION at the beginning of this chapter relating to the use of self-locking nuts.*

3. Remove the bolt and nut (**Figure 37**) securing the shock absorber to the rear axle housing. *Discard* the nut, it cannot be reused.
4. Remove the bolt and nut (**Figure 38**) securing the upper portion of the shock absorber to the frame. *Discard* the nut, it cannot be reused.
5. Move the shock absorber assembly down and out of the frame.
6. Install by reversing these removal steps while noting the following:
  - a. Apply a coat of molybdenum disulfide grease to the upper and lower mounting areas on the frame and the rear axle housing.
  - b. Install *new* self-locking nuts at the upper and lower mount.
  - c. Tighten the mounting bolts and nuts to the torque specification listed in **Table 2**.

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### Inspection

1. Inspect the rubber bushings in the upper (**Figure 39**) and lower joints (**Figure 40**). Replace if necessary.
2. Inspect the spring guide (**Figure 41**). Replace if it is worn or damaged.

### Disassembly/Assembly

Refer to **Figure 42** for this procedure.

The shock is spring-controlled and hydraulically damped. The shock damper unit is sealed and cannot



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